

# Hepatitis A

**Definition:** Viral infection of the liver with symptoms ranging from none to severe jaundice. Clinical illness usually resolves completely after several months, but rarely is complicated by fulminant or relapsing infection. Virus excretion is intestinal and inadequate sanitation results in transmission through food, water, or direct contact. ICD-9-CM codes 070.0 and 070.1

## Summary

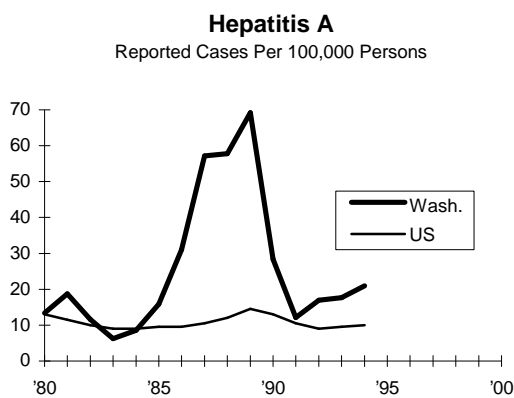
**Hepatitis A is a viral infection spread through fecal-oral transmission. There were 1,119 cases (21/100,000) and two deaths reported in Washington during 1994. In adults, hepatitis A infections can last several months and contribute to lost work time. Control of hepatitis A is through sanitation, treatment of contacts, and immunization.**

## Time Trends

On a world-wide scale, cyclic five to seven year patterns have been reported. In Washington, annual hepatitis A rates have fluctuated widely in the past 15 years. A peak year occurred in 1989 with 3,273 reported cases (69.2/100,000) and five deaths. The increase in cases occurred initially in illicit drug users and then became generalized throughout the state. There were 1,119 cases (21.0/100,000) and two deaths reported in 1994. The number of hepatitis A cases in the first three quarters of 1995 was similar to those reported in the same period the previous year.

Rates of hepatitis A tend to be slightly lower in the US overall as compared to Washington. In the US, no seasonal patterns occur for hepatitis A.

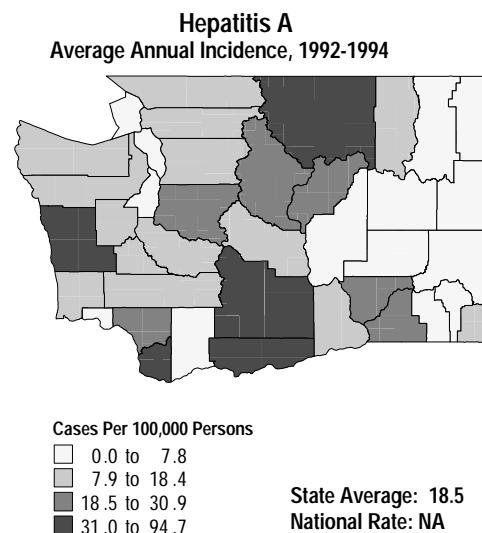
## Year 2000 Goal



No target has been developed for Washington State. The national Year 2000 goal for hepatitis A is a rate of 23.0/100,000 or lower. Washington's rate was lower than this in 1994, but that rate is subject to large annual fluctuations. Until widespread hepatitis A vaccination occurs, it is likely that the national target rate will again be exceeded in Washington at some time in the future.

## Geographic Variation

Infectious disease rates typically fluctuate widely from year to year, and these fluctuations will be even more pronounced when the case numbers are small, as they are in about a third of Washington counties. Certain Washington counties have recently had hepatitis A rates higher than the state average, in part due to increases among illicit drug users. For the three year period 1992-1994, rates were higher than the state average of 18.5 in 11 counties and lower than the average in 28 counties. Five counties had no hepatitis A cases in that period. Rates were

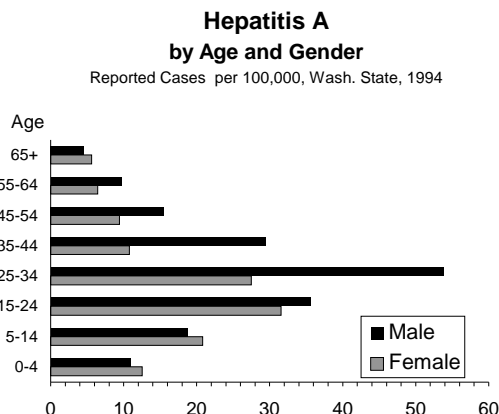


particularly high in Klickitat, Yakima, and Clark Counties in 1994.

## Age and Gender

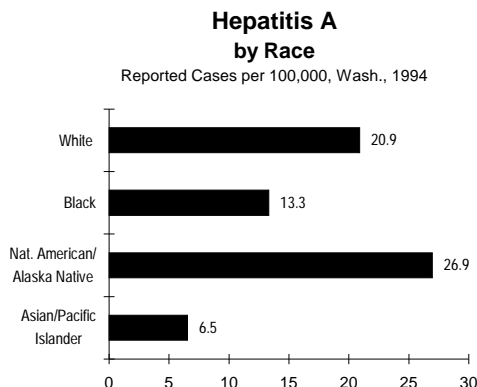
In 1994, rates of reported hepatitis A infections in Washington were highest in the 15-34-year-old group. For all age groups between 15 and 64 years, rates for men exceeded those for women. This is likely to reflect increased risk of infection due to sexual activity and behaviors associated with illicit drug use. Rates may increase during reproductive years due to exposure during child care.

It is likely that reported hepatitis A infection rates for children are lower than the actual rates. Underdiagnosis of pediatric infections is typical because symptoms of the infection may be few or entirely absent in young children. In addition, since the diagnosis of hepatitis A is not considered, the required laboratory tests are often not done.



## Race and Ethnicity

Differences in rates by race or ethnicity are likely to reflect socioeconomic factors, not a genetic predisposition. In 1994, Native Americans had a rate of 26.9/100,000 as compared to 20.9 for whites.



## Other Measures of Impact and Burden

Hepatitis A infection in adults generally causes a severe illness characterized by abdominal pain, fatigue, and jaundice which causes yellow discoloration of the skin and eyes.

The disease is often asymptomatic in infants and young children, resulting in transmission to caregivers who fail to recognize the need for scrupulous sanitation while changing diapers. The infection may also be transmitted to other children having close contact in a household or day care setting.

Deaths, disabilities, or extended hospitalizations due to hepatitis A are rare, with only two deaths in 1,119 cases (0.2%) reported in 1994. Recovery is expected in almost all cases, although duration of illness may be several months for adults and involve extended lost work time with associated economic losses and social stresses. Extensive public health efforts may be required if exposure to hepatitis A has occurred through a commercial food service establishment or day care setting.

In 1994 there were 110 hospitalizations in Washington associated with hepatitis A. The mean length of stay was 4.6 days, accounting for 506 total hospital days.

## Risk and Protective Factors

Hepatitis A is spread by fecal-oral transmission, which can occur through direct contact (including sexual) or through consuming contaminated water, raw or undercooked shellfish, or other food.

Hepatitis A is a prevalent pediatric infection in parts of the world with inadequate sewage treatment and without safe drinking water supplies.

In the United States, food and water sources are usually sanitary, and most hepatitis A transmission occurs between individuals, with recognized cases occurring commonly in young adults. Although community wide outbreaks without a single source of exposure are most common, occasional focal outbreaks occur due to contaminated food or water served to a group of people.

After exposure, risk of disease can be decreased by using immune globulin. For example, an immune globulin injection given within 14 days will avert infection in most people who have eaten uncooked food handled by a person ill with hepatitis A. A two-dose vaccine preventing hepatitis A is recommended for those with repeated potential exposures, such as can occur with travel to areas without safe water supplies.

A higher risk of contracting hepatitis A will occur for any group of people with increased potential for fecal-oral transmission of infections. Four general groups are at increased risk:

***Diapered children and their contacts.***

Hepatitis A infection in young children can be mild and is therefore often unrecognized. Transmission can occur to other children within a household or day care setting, or to adults providing child care.

***Household and sexual contacts of cases.***

Inadequate personal hygiene can result in the transmission of the virus during household or sexual contact. Institutionalized or unsanitary living conditions also present a risk. Any sexual practices involving oral-anal contact will increase the risk of hepatitis A transmission.

***Illicit drug users.*** Poor living conditions and unsanitary habits associated with illicit drug use are probably responsible for increased hepatitis A transmission in this group.

***Travelers to countries with endemic disease.***

Consuming water or food contaminated with feces will increase risk of transmission. In 1994, 4% of Washington hepatitis A cases were in returning travelers.

## **Intervention Points, Strategies and Effectiveness**

Public health efforts to reduce hepatitis A infections are directed in three areas: preventing transmission, reducing risk of infection following exposure, and immunizing high risk groups.

***Preventing Transmission.*** Reducing transmission of hepatitis A requires improved sanitation and personal hygiene. Community-level efforts include providing sewage disposal and safe drinking water. Personal hygiene can be difficult to improve. Few people wash their hands with soap and water for the recommended 15 seconds after using the toilet or after changing a diaper, or before preparing food. Careful hygiene is particularly important in day care settings. Restaurant inspections and food handler training emphasize appropriate personal hygiene.

***Reducing risk of infection following exposure.*** When exposure has occurred, immune globulin injections given within 14 days reduces the chance of infection. Such intervention is recommended for exposure occurring by sexual contact, contact through shared living quarters, day care contact, or consumption of uncooked food handled by a person ill with hepatitis A.

***Immunizing high risk groups.*** In 1995, a vaccine against hepatitis A was approved in the United States. The vaccine is appropriate for high risk groups including travelers to endemic areas and others with extended risk for fecal-oral transmission. While universal immunization would reduce hepatitis A rates, cost prevents the recommendation from being implemented at present.

## **Data Sources**

Washington State Department of Health, *Annual Communicable Disease Report 1994*.

Centers for Disease Control and Prevention, *Summary of Notifiable Diseases, United States, 1994*.

Washington hospitalization data: Comprehensive Hospital Abstract Reporting System (CHARS).

## **For More Information**

American Public Health Association, *Control of Communicable Disease Manual, 1995*.

Washington Department of Health, Office of Epidemiology.